



## APPENDIX A

### VERSION WITH MARKINGS TO SHOW CHANGES MADE

#### IN THE SPECIFICATION:

*Please replace the description of Fig 10, at page 28, with the following rewritten paragraph:*

-- Fig. 10: Diagram of htau40, showing the location of the 7 ser-pro motifs phosphorylated by the kinase activity. The boxes labeled 1-4 are the internal repeats involved in microtubule binding; the second is absent in some isoforms (e.g. htau23). The two shaded boxes near the N-terminus are inserts absent in htau23 and htau24 so that these molecules have only 6 ser-pro motifs. The following radioactive tryptic peptides were found:

29-49: KDQGGYTMHQDQEGDTDAGKLKES<sub>p</sub>PLQ (SEQ ID NO: 31)

191-209: SGDRSGYSS<sub>p</sub>P<sub>p</sub>GSPGTPGSR (SEQ ID NO: 32)

231-240: TPPKS<sub>p</sub>PSSAK (SEQ ID NO: 33)

396-406: SPVVSGDTS<sub>p</sub>PR (SEQ ID NO: 34)

386-406: TDHGAEIVYKS<sub>p</sub>PVVSGDTS<sub>p</sub>PR (SEQ ID NO: 35)

407-428: HLSNVAATGA IDMVDS<sub>p</sub>PQLATL (SEQ ID NO: 36)

260-266: IGS<sub>p</sub>TENL (SEQ ID NO: 37) --

*Please replace the first full paragraph at page 60, with the following rewritten paragraph:*

-- Since it was suspected that the two KSP motifs were phosphorylated by the kinase, it was tried to prove this directly. Radioactively labeled tryptic peptides of htau34 were identified by HPLC and protein sequencing, and phosphorylated residues were determined. There are two major phosphorylated tryptic peptides in these regions; peptide 1 (T231-K240, TPPKS<sub>p</sub>PSSAK (SEQ ID NO: 33)) contains the first KSP motif, phosphorylated at S235, peptide 2 (T386-R406, TDHGAEIVYKS<sub>p</sub>PVVSGDTS<sub>p</sub>PR (SEQ ID NO: 35)) contains the second KSP site, phosphorylated at S396 and S404. S416, the single phosphorylation site of CaM kinase described earlier (Steiner et al., EMBO J. 9 (1990), 3539-3544, S405 in the numbering of htau23 used earlier) is not phosphorylated by the kinase used here. --